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Research Interests

Biomedical Text Mining: literature retrieval; literature management; entity identification; statistics-based relation extraction; NLP-based relation extraction.

Medical Informatics: consumer health; clinical trial data mining; (Electronic Medical Record) EMR mining.

Drug Discovery: network pharmacology; drug repositioning; Pharmacogenomics.

Current Position

Postdoctoral Fellow, National Library of Medicine (NLM), National Institutes of Health (NIH). 2010—

Educational Background

Sep. 2004 – Jan. 2010: Ph.D. in Dept. of Computer Science and Technology, Tsinghua University, China.

Ph.D. Thesis: “Building and Mining Disease-related Protein-Drug Connectivity Maps”

Sep. 2000 – Jul. 2004: B.S. in Dept. of Computer Science and Technology, Northeastern University, China.

Research & Teaching Experiences

Sep. 2007—Jul. 2009: Purdue University School of Science, USA. Visiting Ph.D. Student

May. 2007—Aug. 2007: IBM China Research Laboratory, China. Intern

Spring Semester 2007: Tsinghua University, Teaching Assistant of Artificial Neural Network

Sep. 2005—Nov. 2005: Fraunhofer's Integrated Publication and Information Systems Institute IPSI in Darmstadt, Germany, Intern

Honors and Awards

2011: National Library of Medicine (NLM) Federal Technology Transfer Act Award

(In recognition and appreciation of outstanding scientific or technological contribution.

This award is nominated by the NCBI director Dr. David J. Lipman, and awarded by the NLM director Dr. Donald A.B. Lindberg.)

2010: National Center for Biotechnology Information (NCBI) Special Act or Service Award

2010: ISMB Travel Fellowship

2010: Excellent Ph.D. Thesis Award of Tsinghua University

2009: ACM SIGAPP Student Travel Award

2008--2009: Oversea Scholarship Supported by China Scholarship Council (CSC)

2007--2008: IBM Ph.D. Fellowship

2006: National Science Foundation (NSF) Scholarship

2006: President Scholarship (Yiqi Mei Scholarship) for Outstanding Student in Tsinghua University

2006: Excellent Graduate Assistant in Tsinghua University

2005: Outstanding Graduate Student Scholarship in Tsinghua University

2004--2006: Excellent Research Award in State Key Laboratory of Intelligent Technology and Systems, Tsinghua University

2004: Excellent Bachelor Thesis Award of Northeastern University

2001--2003: Excellent Studying Scholarship in Northeastern University (first class)

Professional Services

Review work for journals and conferences:

BMC Systems Biology

BMC Bioinformatics

Methods of Information in Medicine

AMIA Summit on Translational Bioinformatics (AMIA TBI 2011)

AMIA Annual Symposium 2012

Scientific program committee for conferences:

ACM SIGHIT International Health Informatics Symposium (IHI2012)

International Workshop on Data Mining in Bioinformatics (BIOKDD2010)

Publications

Journal

[1] **Jiao Li** and Zhiyong Lu. Systematic Identification of Pharmacogenomics Information from Clinical Trials. *Journal of Biomedical Informatics*. 2012, doi:10.1016/j.jbi.2012.04.005

[2] **Jiao Li** and Zhiyong Lu. Automatic Identification and Normalization of Dosage Forms in Drug Monographs. *BMC Medical Informatics and Decision Making*. 2012, 12(9): doi:10.1186/1472-6947-12-9

[3] **Jiao Li**, Xiaoyan Zhu and Jake Y. Chen. Discovering Breast Cancer Drug Candidates from Biomedical Literature. *International Journal of Data Mining and Bioinformatics*, 2010. 4(3):pp. 241-255.

[4] **Jiao Li**, Xiaoyan Zhu, and Jake Y. Chen. Building Disease-specific Drug-Protein Connectivity Maps from Molecular Interaction Networks and PubMed Abstracts. *PLoS Computational Biology*, 2009. 5(7): e1000450.

[5] **Jiao Li**, Minlie Huang, and Xiaoyan Zhu, An Ontology-based Mining System for Competitive Intelligence in Neuroscience. *Lecture Notes in Artificial Intelligence (LNAI)*, 2007. 4845: pp. 291-304.

[6] **Jiao Li** and Xiaoyan Zhu. Automatic Extraction of Genomic Glossary Triggered by Query. *Lecture Notes in Computer Science (LNCS)*, 2006. 3916: pp. 24-34.

[7] **Jiao Li**, Minlie Huang, Shilin Ding, Hao Yu, Xiaoyan Zhu (2006), Semantic Relationship-Oriented Biological Text Retrieval. *Journal of University of Science and Technology of China*, 2006. 36(8): p. 906-908.

[8] Xiaoyan Zhu and **Jiao Li**, Biological Literature Mining. *IT Education*, 2006. 9: 11-15.

[9] Xiaoyan Zhu and **Jiao Li**, Annual Report of Bioinformatics in China. China Computer Federation Proceedings: Development Report on China's Computer Science and Technology 2006 . pp.348-372.

Conference

Long Paper

[10] Aurelie Neveol, **Jiao Li** and Zhiyong Lu. Linking multiple disease-related resources through UMLS. The 2nd ACM SIGHIT International Health Informatics Symposium. IHI 2012. Miami, Florida, USA.

[11] **Jiao Li**, Pamela Crowell and Jake Y. Chen. Construct Anticancer Drug-Drug Correlation Network. *Proceedings of the 24th Annual ACM Symposium on Applied Computing*. ACM SAC 2009: pp. 771-775. Hawaii, USA.

[12] Hui Huang, **Jiao Li**, and Jake Y. Chen. Disease Gene-fishing in Molecular Interaction Networks—a Case Study in Colorectal Cancer, *Proceedings of the 31st Annual International Conference of the IEEE Engineering in Medicine and Biology Society*. 2009: pp. 6416-6419. Minneapolis, USA.

[13] **Jiao Li**, Xiaoyan Zhu and Jake Y. Chen. Mining disease-specific molecular association profiles from biomedical literature: a case study. *Proceedings of the 23rd Annual ACM Symposium on Applied Computing*, ACM SAC 2008: pp. 1287-1291. Fortaleza, Brazil.

[14] **Jiao Li**, Minlie Huang, and Xiaoyan Zhu, Ontology-based Biomedical Literature Management for Competitive Analysis. *Proceedings of the 2nd International Conference on Bio-Inspired Computing: Theories and Applications*, BIC-TA 2007. Zhengzhou, China.

[15] **Jiao Li** and Xiaoyan Zhu. Query-based Genomic Glossary Extraction. *Proceedings of the 1st China-Kyoto Student Workshop on Digital Content and Web Computing*. 2006. Beijing, China.

[16] **Jiao Li**, Xian Zhang, Yu Hao, Minlie Huang, Xiaoyan Zhu. Learning Domain-Specific Knowledge from Context--THUIR at TREC2005 Genomics Track. *Proceedings of 14th Text Retrieval Conference (TREC2005)*. 2005. Gaithersburg, USA.

[17] **Jiao Li**, Xian Zhang, Min Zhang and Xiaoyan Zhu. THUIR at TREC 2004: Genomics Track”, *Proceedings of 13th Text Retrieval Conference (TREC2004)*, pp 571-575, Gaithersburg, USA

[18] **Jiao Li** and Xiaoyan Zhu, Ontology Modeling for Biological Literature and Application on Semantic Search. *The 3rd Students' Workshop on Computational Linguistics*. 2006. Shenyang, China.

Poster

[19] **Jiao Li** and Zhiyong Lu. Enriching and Integrating Drug Resources for Health Consumers. *The National Library of Medicine Showcase*. 2011. Bethesda, USA.

[20] **Jiao Li** and Zhiyong Lu. Assigning Brand Names to Drug Monographs in PubMed Health. *The AMIA 2011 Annual Symposium*. 2011. Washington DC, USA.

[21] **Jiao Li**, Zhiyong Lu, Xiaoyan Zhu and Jake Chen, Systematic Evaluation of Disease Gene Identification in Molecular Interaction Networks. *18th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB 2010)*. 2010. Boston, USA

[22] Jingchen Liu, **Jiao Li**, Minlie Huang, Xiaoyan Zhu, John Wilbur and Zhiyong Lu, A Novel Learning-based System for Assisting Gene Indexing. BioCreative III workshop 2010. Bethesda, USA.

[23] **Jiao Li**, Zhiyong Lu, Xiaoyan Zhu and Jake Chen. A Computational Method for Mining the Relationships between Diseases, Proteins and Drugs from Molecular Network and PubMed. *The AMIA 2010 Annual Symposium*. 2010. Washington DC, USA.

Training Certificates

National Library of Medicine Training: **PubMed®**

National Library of Medicine Training: **NLM Gateway and Clinical Trials.gov**

National Library of Medicine Training: **TOXNET® and Beyond**